

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7203

Petition of Village of Morrisville Water & Light)
Department for a certificate of public good,)
pursuant to 30 V.S.A. § 248(j), authorizing the)
upgrade of Substation #5 in the Town of)
Morristown)

Order entered: 9/13/2006

I. INTRODUCTION

This case involves a petition filed by the Village of Morrisville Water & Light Department ("Morrisville") on May 31, 2006, requesting a certificate of public good under 30 V.S.A. § 248(j) to upgrade its substation #5 in Morristown, Vermont. Morrisville submitted prefiled testimony, proposed findings, and a proposed order pursuant to the requirements of 30 V.S.A. § 248(j).

On June 21, 2006, the Public Service Board ("Board") issued a memorandum stating that additional information was required before the Board could notice the proposed project pursuant to Section 248(j). Morrisville filed the required supplemental testimony on July 11, 2006.

Notice of the filing in this Docket was sent on July 19, 2006, to all entities specified in 30 V.S.A. § 248(a)(4)(c) and all other interested parties. The notice stated that any party wishing to submit comments as to whether the petition raises a significant issue with respect to the substantive criteria of 30 V.S.A. § 248 needed to file comments with the Board on or before August 21, 2006. A similar notice of the filing was published in *The Transcript* on July 24 and 31, 2006.

The only comment received was from the Department of Public Service, filed on August 29, 2006, stating that it does not believe that the petition raises a significant issue with respect to the criteria of Section 248 and has no objection to the issuance of a certificate of public good.

The Board has determined that the proposed construction will be of limited size and scope and that the petition has effectively addressed the issues raised with respect to the substantive criteria of 30 V.S.A. § 248. Consequently, we find that the procedures authorized by Section 248(j) are sufficient to satisfy the public interest, and no hearings are required.

II. FINDINGS

1. Morrisville is a company, as defined in 30 V.S.A. § 201, and is also an organized municipal electric utility under Chapter 79 of Title 30. Petition at 1.
2. Morrisville's system includes Substation #5 in the Town of Morristown, Vermont. Substation #5 is located on Trombley Hill Road, near the junction of Route 100 South and Route 15. The area served by the substation is a mix of commercial, industrial, and both high and low density residential customers. The area is expected to experience commercial and industrial growth in the coming years. Petition at 1-2; Fontaine pf. at 2-4.
3. Substation #5 is connected in-line on a 34.5 kV subtransmission line that runs from Middlesex to Marshfield, Vermont (the "3319 Line"). Morrisville owns the portion of the 3319 Line that enters and exits Substation #5. Substation #5 consists of a 3750 KVA, 34.5-12.0 kV transformer with a grounding bank to provide the neutral for a 12.5 kV distribution feeder. Fontaine pf. at 2-3.
4. Substation # 5 is currently designed for three separate distribution circuits exiting the substation. The first circuit is a 12 kV delta circuit that serves a small number of residential customers and approximately fifteen commercial properties. The second circuit is a 12.5/7.2 kV circuit utilizing three 114 KVA transformers as a grounding bank to provide the Y capability. The third circuit was supplied from a 2000 kVA, 12.0-2.4 kV transformer which failed in 2004 and has not been replaced. The majority of customers on the third circuit have been transferred to another substation and the remaining portion of the circuit has been converted to 12.5/7.2 Y and is served by the 12.5 kV circuit out of Substation #5. Petition at 2; Fontaine pf. at 2-3.
5. Morrisville proposes to eliminate the 34.5/12 kV transformer, the grounding bank, the failed 2.4 kV transformer, and three regulators. Fontaine pf. at 3.

6. Morrisville proposes to install a 7500 kVA 34.5/12.5 kV transformer and three 167 kVA regulators. The substation would be reconfigured to have two 12.5/7.2 kV circuits exiting the substation. The steel structure would be modified to allow for the addition of two additional circuits in the future should the need arise. The rebuild would also include an oil containment pit for the proposed transformer and replacement of the existing ground grid in the substation. Fontaine pf. at 4.

7. The steel structure of the existing substation would remain in place and be utilized in the proposed construction. The actual profile of the substation would not change significantly. Fontaine pf. at 3.

8. The transformer change and the addition of the regulators would take place within the existing steel structures in the substation. However, Morrisville proposes to expand the fenceline on the southwest side of the substation, near an existing capacitor bank, by one foot to ensure compliance with recommended clearances between the fence and the capacitor bank. No site clearing would be required to accommodate the change in the fenceline. Fontaine pf. at 5.

9. Morrisville proposes to install a 34.5 kV/12.5 kV mobile substation as part of the substation rebuild to facilitate the proposed construction. A two-pole structure would be installed in line with the existing 34.5 kV line on the southwest corner of the property to enable the connection of the mobile substation. The mobile substation would be located on an existing graded surface with a temporary eight-foot fence, measuring approximately 30' by 30', surrounding the mobile substation for safety. The final area would be dependent on the size of the mobile substation due to a minimum ten-foot separation requirement between the mobile substation and the fence. Fontaine pf. at 6.

10. The site work to install the mobile substation would be limited as the area is already cleared and is relatively flat. Some silt fencing may be required to prevent any run-off from the area. Fontaine pf. at 6.

11. The proposed upgrade would be constructed in accordance with the most current National Electrical Safety Code. Fontaine pf. at 17.

Orderly Development of the Region

[30 V.S.A. § 248(b)(1)]

12. The proposed project would not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. This finding is supported by findings 13 and 14, below.

13. The proposed upgrades would have limited aesthetic impact, with no disruption to the existing landscape. Fontaine pf. at 8.

14. Neither the Morristown Zoning By-Laws nor the Lamoille County Regional Plan contain provisions that would indicate that the proposed upgrade would adversely impact orderly development of the town or region. Fontaine pf. at 8.

Need for Present and Future Demand for Service

[30 V.S.A. § 248(b)(2)]

15. The proposed project is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load management measures. This finding is supported by findings 16 through 20, below.

16. The equipment in Substation #5 is old and the failure of the 12/2.4 kVA transformer in 2004 has stressed the capability of the existing 2.4 circuit from the other substation being used to pick up a portion of the load. This situation has also limited the ability to provide system backup in the case of a transformer failure at the other substation. Fontaine pf. at 4.

17. Morrisville's planning studies from 1993 and 2005 recommend the gradual conversion of the 2.4 kV system to 12.5/7.2 kV to improve line loss and provide the ability to serve future load growth. Fontaine pf. at 4.

18. The proposed modifications would improve reliability and are consistent with Morrisville's Distribution Plan. Fontaine pf. at 4.

19. The need for the upgrade could not be avoided through demand-side management programs. The immediate problem facing the area is the failed transformer and the need to shift load to another circuit. Conservation would not be able to reduce enough load to eliminate the need to install a new transformer. The overall efficiency of the system is improved by increasing the voltage level to 12.5 kV and eliminating two old existing substation transformers. Fontaine pf. at 6-7.

20. The increase in transformer size allows for emergency back-up capacity to other substations' loads and allows for the eventual retirement of other substations in the Morrisville system. Additionally, Morristown expects commercial and industrial load growth. Fontaine sup. pf. at 2-3.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

21. The proposed project would not adversely affect system stability and reliability. The proposed project improves the reliability and stability of the Morrisville system by eliminating old transformers and equipment and consolidating all the circuits in the substation to one voltage. Consolidation allows for tie points at various locations with the area served by Substation #5 and the eventual interconnection to feeders from other substations on the system, which would improve voltage regulation on the system and address the replacement of the existing failed transformer at Substation #5. Fontaine pf. at 7.

Economic Benefit to the State

[30 V.S.A. § 248(b)(4)]

22. The proposed project would result in an economic benefit to the State by improving the reliability and performance of Morrisville's system as the load in the area continues to grow. The proposed project is estimated to cost \$220,000. Fontaine pf. at 6, 8.

**Aesthetics, Historic Sites, Air and Water Purity,
the Natural Environment and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

23. The modifications as proposed will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and public health and safety. This finding is supported by findings 24 through 52, below, which are the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

Outstanding Resource Waters

[10 V.S.A. § 1424(a)(d)]

24. There are no designated outstanding resource waters in the area of the proposed project. Fontaine pf. at 9.

Water and Air Pollution

[10 V.S.A. § 6086(a)(1)]

25. The proposed project would not result in undue water or air pollution. This finding is supported by findings 26 through 42, below.

26. The proposed project would not require any burning and dust would be controlled during construction. Emissions associated with the proposed project would be limited to truck and heavy exhaust during construction and would be of limited duration. Fontaine pf. at 10.

27. The proposed project would not result in any increased noise. Fontaine pf. at 10.

Headwaters

[10 V.S.A. § 6086(a)(1)(A)]

28. The proposed project is not located in a headwaters area. Fontaine pf. at 11.

Waste Disposal

[10 V.S.A. § 6086(a)(1)(B)]

29. The proposed project would meet applicable health and environmental conservation regulations regarding the disposal of wastes, and would not involve injection of waste materials or any harmful toxic substances into ground water. This finding is supported by findings 30 through 33, below.

30. The proposed project would not create any discharges to surface or ground water. Fontaine pf. at 11.

31. All construction debris from the proposed project would be disposed of at a state-approved landfill. Fontaine pf. at 11.

32. The proposed project would not result in significant increases in storm-water flow. Fontaine pf. at 11.

33. One of the transformers that would be removed is known to contain PCBs and the second transformer would be tested for PCB contamination. Both transformers will be disposed of in an appropriate manner. Fontaine sup. pf. at 3.

Water Conservation

[10 V.S.A. § 6086(a)(1)(C)]

34. The proposed project would not involve any impact on potable water supplies. Fontaine pf. at 12.

Floodways, Streams, and Shorelines

[10 V.S.A. §§ 6086(a)(1)(D)(E) &(F)]

35. The proposed project is not located in a floodway and would not impact streams or shorelines. Fontaine pf. at 12-13.

Wetlands

[10 V.S.A. § 6086(a)(1)(G)]

36. The proposed project would not have an undue adverse impact on any wetlands in the area. This finding is supported by findings 37 and 38, below.

37. There is a small, isolated, Class III wetland near the substation. However, the proposed construction would not take place in this wetland. Fontaine pf. at 13; exh. JF-3.

38. Due to the proximity of the construction work to the wetland, Morrisville would implement erosion prevention and sediment control measures if any earth work is necessary as part of the proposed project. Such measures would be implemented and maintained in accordance with the Vermont Handbook for Erosion Prevention and Sediment Control. Fontaine pf. at 13; exh. JF-3.

Sufficiency of Water and Burden on Existing Water Supply

[10 V.S.A. §§ 6086(a)(2)&(3)]

39. The proposed project would not use water and would not draw down any existing water supply. The proposed project would not impact potable water supplies. Fontaine pf. at 13-14.

Soil Erosion

[10 V.S.A. § 6086(a)(4)]

40. The proposed project would not result in unreasonable soil erosion or reduce the ability of the land to hold water. This finding is supported by findings 41 and 42, below.

41. The proposed project does not involve construction of an access road. Fontaine pf. at 14

42. If any earth work is required, erosion prevention and sediment control measures would be implemented and maintained according to the guidelines established by Vermont Agency of Natural Resources in the Vermont Handbook for Erosion Prevention and Sediment Control. Fontaine pf. at 14; exh. JF-3.

Transportation Systems

[10 V.S.A. § 6086(a)(5)]

43. The proposed project would not cause unreasonable congestion or unsafe conditions with respect to transportation systems. Construction would take place at the substation, which is away from busy town streets and state highways. Fontaine pf. at 15.

Educational Services

[10 V.S.A. § 6086(a)(6)]

44. The proposed project would not cause an unreasonable burden on educational services. Fontaine pf. at 15.

Municipal Services

[10 V.S.A. § 6086(a)(7)]

45. The proposed project would not place an unreasonable burden on municipal services. Fontaine pf. at 15.

**Aesthetics, Historic Sites
and Rare and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

46. The proposed project would not have an undue adverse impact on the scenic or natural beauty of the area, or upon aesthetics, historic sites or rare and irreplaceable natural areas. This finding is supported by findings 47 through 50, below.

47. The profile of the existing substation would not change significantly. The proposed new transformer is similar in size to the unit it would be replacing and there would be no noticeable difference in the structures. Fontaine pf. at 9.

48. The expansion of the substation fence would be limited to one foot on one side of the fence. Additionally, the substation is set back from Trombley Hill Road and is well screened from the road with large existing white pines. Fontaine pf. at 9.

49. The proposed project would not impact historic or archaeological sites. Fontaine pf. at 9.

50. The proposed project would not impact any rare and irreplaceable natural areas. Fontaine pf. at 16; exh. JF-3.

Necessary Wildlife Habitat and Endangered Species

[10 V.S.A. § 6086(a)(8)(A)]

51. The proposed project would not impact identified necessary wildlife habitat or endangered species. Fontaine pf. at 16; exh. JF-3.

Development Affecting Public Investments

[10 V.S.A. § 6086(a)(9)(K)]

52. The proposed project is not located near any public or quasi-public investments or government or public facilities, services, or lands. Fontaine pf. at 16.

Least-Cost Integrated Resource Plan

[30 V.S.A. § 248(b)(6)]

53. The proposed project complies with the principles of resource selection expressed in Morrisville's approved least-cost integrated plan in that the proposed project would allow the upgrade of distribution lines to improve line losses. Fontaine pf. at 17.

Compliance with Electric Energy Plan

[30 V.S.A. § 248(b)(7)]

54. The proposed project is consistent with the Department of Public Service's Twenty-Year Electric Plan. Fontaine pf. at 17-18.

55. The Department filed a determination, in a letter filed on August 30, 2006, that the proposed project is consistent with the Vermont Twenty-Year Electric Plan, in accordance with 30 V.S.A. § 202(f).

Outstanding Resource Waters

[30 V.S.A. § 248(b)(8)]

56. The proposed project is not located near any outstanding resource waters. Fontaine pf. at 9; exh. JF-3.

Existing or Planned Transmission Facilities

[30 V.S.A. § 248(b)(10)]

57. The proposed project can be economically served by existing or planned transmission facilities without undue adverse impact on Vermont utilities or customers. Fontaine pf. at 18.

III. REQUIRED VOTE AND ASSESSMENT OF RISKS AND BENEFITS

Morrisville is required by Section 248(c) to conduct a vote on the proposed project, and to provide its voters with a written assessment of associated risks and benefits identified by the Board and an assessment of any other risks and benefits determined by Morrisville.

The benefits associated with the proposed project include increased reliability and stability for Morrisville's system and decreased line losses. The risks associated with the proposed project involve the financial costs of the upgrade and the limited environmental impacts of moving the substation fence and clearing an area for the mobile substation.

IV. CONCLUSION

Based upon all of the above evidence, we conclude that the proposed construction will be of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

V. ORDER

IT IS HEREBY ORDERED ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the proposed modifications, in accordance with the evidence and plans presented in this proceeding, will promote the general good of the State of Vermont in

accordance with 30 V.S.A. Section 248, and a certificate of public good shall be issued in the matter.

Dated at Montpelier, Vermont this 13th day of September, 2006.

<u>s/James Volz</u>)	
)	PUBLIC SERVICE
)	
<u>s/David C. Coen</u>)	BOARD
)	
)	OF VERMONT
<u>s/John D. Burke</u>)	

OFFICE OF THE CLERK

FILED: September 13, 2006

ATTEST: s/Susan M. Hudson
Clerk of the Board

Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: PSB.Clerk@state.vt.us)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.